Cost and Management

The official journal of

The Society of Industrial and Cost Accountants of Canada

January, 1951

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We will be glad to outline our scope and methods and discuss your problems in a dignified and ethical way—Your inquiries are invited—No obligation, naturally.

COST *and* MANAGEMENT

VOL. XXV JANUARY No. 1

WHAT DO DISTRIBUTION COSTS COST YOU?

By C. B. Taylor, R.I.A. 14

Mr. C. B. Taylor has been established as a Cost Accountant in Toronto since 1934. His earlier employment was with Hayes Steel Products Limited, as Factory Manager. He is at present Secretary-Treasurer of the Canadian Institute of Stove and Furnace Manufacturers, Managing Director of the National Warm Air Heating & Air Conditioning Association and a member of both the Certified Public Accountants Society and the Society of Industrial and Cost Accountants.

SOME PROBLEMS IN BUDGETARY CONTROL IN THE PULP AND PAPER INDUSTRY

By F. E. Wood, O.B.E., R.I.A. 24

F. E. Wood is Secretary-Treasurer of Marathon Paper Mills of Canada Limited, and an executive officer of several subsidiary and allied companies. He is also Hon. Secretary, Society of Industrial and Cost Accountants of Canada; Vice-Chairman, Midwest Branch, Technical Section, Canadian Pulp & Paper Association; and a member Advisory Council, Lakehead Technical Institute. He was formerly Chief Cost Accountant and Director, Cost Inspection and Audit Division, Office of the Comptroller of the Treasury. He is Past President, Society of Industrial and Cost Accountants of Ontario, and a Past Chairman of the Ottawa Chapter.

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SOCIETY NOTES

A Message from the President

At the dawning of the New Year we are faced with a challenge — the challenge of deserving and appreciating the blessings of our freedoms, the solace of our security, the fruits of our prosperity, the high standards of our living and the unprecedented greatness of our achievements and progress.

And there are so many ways to meet this challenge—so many ways to prove that we are deserving.

But, first, let us give thanks that ours is not a devastated country; that we are not famine ridden; that we are not living under the inhuman duress of a dictatorship.

We should give thanks that, despite the many and pressing problems affecting our lives and living—despite the fears engendered by strained international political relations, we are indeed a fortunate people.

Truly, we are a fortunate people with a future bright with the promise of even greater achievements and progress in the sciences, in the useful arts, in industry, in education and enlightenment—and we pray, a future glowing with the promise of an enduring peace.

To be deserving of these privileges, advantages and advancements, we, as individual citizens, must work, think, act and live to make them possible and to protect them, and thus strengthen our Country as a whole.

And there should be no countenancing or acceptance of any doctrine or doctrines which might endanger our freedoms, our security, our democratic way of living. Our very lives should be dedicated to the fight against ignorance, despotism and fear to the end that liberty, freedom and tolerance might prevail.

At the beginning of another year I wish for you and yours good health and good cheer, satisfying achievement and good fortune throughout not only the New Year but throughout the years to come.

NORMAN TERRY, President.

1951 ANNUAL COST AND MANAGEMENT CONFERENCE

Commencing on Thursday, June 14th and continuing through Saturday, June 16th, the Quebec Society will be host to the 30th Annual Cost and Management Conference.

Headquarters for the Conference will be the Chantecler Hotel in the picturesque Laurentian setting of Ste. Adele, Quebec, with additional accommodation at Ste. Adele Lodge. A most interesting and profitable programme is being prepared following the pattern of last year, but with added emphasis being given to technical sessions. Two full days will be devoted to the discussion of problems relating to the field of Industrial Accounting and Financial Management. Thought provoking subjects of timely interest have been selected and the technical sessions committee is making every effort to produce an attractive programme with plenty of "meat" in it and well worth the time and effort to attend the Conference.

The Entertainment Committee will take full advantage of the many facilities and the beautiful scenery of this choice location to provide a series of delightful events for both the men and their ladies.

A very strong and energetic committee has been appointed under the joint chairmanship of A. V. Madge, R.I.A., Secretary-Treasurer, Crawley-McCracken Co. Ltd. and Victor F. Davies, R.I.A., Cost Accountant, Northern Electric Co. Ltd., both of Montreal. They are supported by the following Committee members: —

Publicity — G. Goldsmith, Montreal Manager, International Business Machines Ltd.

Reception — Charles P. Dumas, M.C.I., R.I.A., Manager, Canadian Credit Men's Trust Association.

Reservations — Randall Herron, Haskell, Elderkin & Co., Chartered Accountants.

Transportation — R. L. Sewell, Supervisor of Accounting, Building Products Ltd.

Technical Sessions — A. S. Keiller, C.G.A., R.I.A., General Auditor, Sherwin Williams Co. of Canada Ltd.

Programme — M. H. Bacon, R.I.A., Secretary-Treasurer, Consolidated Lithograph Mfg. Co. Ltd.

Finance — J. V. Farrell, Chief Accountant, E. G. M. Cape & Co.

New Members

EDMONTON CHAPTER

W. R. Detmold, Waterloo Industries Ltd.
Roy Dickinson, City of Edmonton

HAMILTON CHAPTER

Anthony Scheffler, Studebaker Corp. of Canada
D. R. Sheppard, 36 Belleview Ave., Hamilton Beach, Ontario

KENT COUNTY CHAPTER

James A. Battist, Tube Turns of Canada Ltd., Chatham, Ontario

KINGSTON CHAPTER

Edwin J. Johnson, P.O. Box 35, Kingston, Ontario

MONTREAL CHAPTER

P. W. Reid, Dominion Dairies Limited
T. Price, Morris Lumber Limited

NIAGARA CHAPTER

John A. Weedon, The McBee Co. Ltd., Hamilton, Ontario
A. Birnie, English Electric Co. of Canada Ltd., St. Catharines, Ont.

NOVA SCOTIA SOCIETY

I. B. Jamieson, The Feron Company, Halifax, Nova Scotia
A. G. Tibbitts, Consumers Cordage Co. Ltd., Dartmouth, Nova Scotia

OTTAWA CHAPTER

Gordon A. Scrimgeour, The Ontario Hughes Owens Co. Ltd.

ST. MAURICE VALLEY CHAPTER

Randall E. Innes, The Wabasso Cotton Company Limited, Trois Rivieres, Quebec

SASKATOON CHAPTER

A. B. Gilmour, Landis, Saskatchewan
D. A. Jones, Sask. Federated Co-operatives Ltd.

TORONTO CHAPTER

Frank W. Wolman, Stone Smith & Co.
G. W. Tomlins, Trane Co. of Canada Ltd.
Percy G. Fletcher, Duplate Canada Limited, Oshawa, Ontario

WINDSOR CHAPTER

Emil J. Boris, Calvert Distillers (Canada) Limited

NON-RESIDENT NEW BRUNSWICK SOCIETY

Mrs. E. Kilbride, E. S. Sticklen Limited, Chatham, N.B.

Chapter Notes

KENT COUNTY CHAPTER

The Kent County Chapter enjoyed one of its best meetings in November with 46 in attendance, to hear Mr. R. W. Lemon, C.A., of Clarkson, Gordon & Co. Mr. Lemon discussed the New Depreciation Schedule, and clarified in a most interesting manner many points concerning depreciation write-off under the Income Tax Regulations.

LONDON CHAPTER

Professor James Taylor of the University of Western Ontario gave a most enlightening address on the subject "Analysis of Financial Statement" at the November meeting of the Chapter.

Professor Taylor emphasized the importance of the Source and Application of Funds Statement and illustrated various ways in which financial information might be presented depending upon the persons to whom it is directed.

The Chapter was honoured to have as its guest, Mr. R. H. Metcalfe, President of the Ontario Society.

MONCTON CHAPTER

A dinner meeting of the Moncton Chapter of the Society of Industrial and Cost Accountants was held in the Moncton Curlers Association club room.

The special speaker was R. B. Fullerton, Cost Accountant at the Enamel and Heating Products Limited, of Sackville.

Mr. Fullerton outlined the principles of cost accounting, its objects and various methods used. He stressed its value to management inasmuch as cost accounting is an index to waste and an incentive to attain the perfect result.

ST. MAURICE VALLEY CHAPTER

On December 15th as a prelude to the Christmas Holiday Season, the St. Maurice Valley Chapter held their First Annual Dance in lieu of their regular dinner meeting. Forty couples attended the dance at the Cascade Inn in Shawinigan Falls, Que. and a most enjoyable time was had by all.

Refreshments were served at 1 a.m. in the Main Lounge and prizes were also given. The response to this invitation was most gratifying and it would appear that an annual dance will form a regular part of future programmes.

VICTORIA CHAPTER

The Victoria Chapter of Industrial & Cost Accountants held a dinner meeting at the Sirocco Supper Club, on December 8th.

Mr. G. E. Weightman spoke to the members on "Organization and Accounting Controls", dealing in an interesting and informative manner with the main features of a complex subject.

At the close of the evening, Mr. G. E. Weightman, who is being transferred to Calgary, was presented with a script from the members as a token of the personal esteem in which he is held, and appreciation of his work as chairman of the Victoria Chapter.

◆ C & M ROUND-UP ◆

N. R. BARFOOT, R.I.A.

INTEREST RATES?

The Bank of Canada has announced that it will increase its interest rates from 1½ to 2%.

This merely underlines the warnings of the Finance Minister in September that capital developments will have to be reduced to clear the way for rearmament. A buying spree at capital level must be avoided as an aid in the government's anti-inflation moves.

IRON ORE

The largest initial financial commitment for a mining venture ever to be undertaken in Canada was negotiated recently by the Iron Ore Co. of Canada.

Two hundred million dollars will be used in the development of the Company's Quebec Labrador Iron Ore deposits.

Plans call for an immediate start on the construction of mining, railway and handling facilities. Ore shipments by ship from the St. Lawrence are planned for 1955.

Around 10,000 men will be employed in the huge construction project.

HIDDEN PAYROLL

How much in terms of dollars per week or cents per hour is industry paying for pensions, hospitalization and other "fringe" benefits?

The U.S. Chamber of Commerce has just completed such a study. American business is paying $477.00 per year, or $9.17 a week over and above wages. Broken down into cents per hour it represents 23.7 cents per hour.

The "fringe" benefits in Canada are given in about the same degree and frequency. Canada also has a benefit unkown to the U.S. — that is the baby bonus. At the wage level of the average industrial worker baby bonus is very largely a net gain to income.

Average family allowances per family have been running $3.06 per week.

It would seem, therefore, that benefits in this country are worth about $12.00 per week.

Accountants should have these hidden payroll dollars organized in such a fashion in accounts that they are readily available for management use.

MANAGEMENT AUDIT

Accountants are all familiar with accounting audit. It is part and parcel of the accounting program of checking its application of the debit and credit theory and the mathematical accuracy of accounts.

A management audit is a constructive and objective examination of a company's policies, of its organization structure, of its operating methods,

and of its utilization of human and physical facilities — all aimed at finding means to improvement.

The objective is to increase the effectiveness of the business machinery. It serves as a check on top management by itself and becomes a means of self improvement.

There is, therefore, in most companies from time to time a need for such an examination by qualified consultants.

The accounting function of a company is no exception. Perhaps your accounting department needs such a survey. More and more Canadian companies are availing themselves of the services of management consultants and are finding the results most interesting by way of better service, decreased costs and improved efficiency.

MORE POWER

The discoveries of the Leduc oil field in 1947 excited all Canada with the possibilities of petroleum self sufficiency. In 1947 Canada imported 198.2 million dollars worth of crude and refined oil products. In the same year a current 1.1 billion current account deficit existed with the United States.

Work since then by the major oil companies has resulted in a pipe line from the West to Superior, Wisconsin and the construction of two huge lake tankers to bring the oil across the Great Lakes to refining facilities at Sarnia. The first oil will reach the East next Spring.

This is a business adventure of the first order, but also ensures more power to vital Eastern Canada Industries which will presently face expansion for defence purposes. The possibility of having our own petroleum in a pre-war period is of tremendous importance.

NEW PLANTS

Since 1945 over 1000 new plants have been built in Canada. Total employment amounts to 41,000 workers.

Eight hundred and thirty-four of these new firms are Canadian in origin, 147 are American, 34 British and 16 from other countries.

1949 was the peak year in which 234 new manufacturing companies began business.

An analysis of the new Canadian plants show that 245 are textiles, 152 wood products, 87 beverages, 72 iron and steel, and 32 leather goods, and 40 non-metallic minerals.

Quebec leads the provinces in total of new ventures, namely, 449; Ontario was second with 314; British Columbia had 101, Manitoba 61; Nova Scotia 38; Alberta 28; New Brunswick 21; Saskatchewan 12 and Newfoundland 7.

New products from these firms include jet aircraft, diesel locomotives, gas turbine engines, roller bearings, automobile parts, electronic equipment, chemicals and glass insulation.

A remarkable 5 year period of industrial expansion has boosted Canadian business to the highest level in our history. With the tremendous natural resources and manufacturing know how, presently on the Canadian scene there is every reason to believe that we are just beginning and another five years will far outdo the past effort.

Current Literature Digest

By W. W. HENDERSON, R.I.A.

ADVANTAGES TO A BUSINESS WHICH RESULT FROM ABANDONING A DECEMBER 31st CLOSING DATE—By Edward Mezner, C.P.A., in the Journal of Accountancy, November 1950.

Mr. Mezner makes a strong case for the substitution of some other closing date than December 31st.

In the first place, the author contends that most businesses have a natural yearly cycle, at the end of which activity and inventories are at their lowest point. Even those businesses which have not such a natural cycle are advised to consider some other closing date than that of the calendar year-end.

Low inventories possess fewer inherent possibilities for error in statement—both because stock-taking and pricing does not compete so greatly with daily routine; and attendantly, more experienced staff can usually be assigned to the work. Accounting staffs are usually over-burdened, immediately subsequent to December 31st, with such reports as those for workman's compensation Income Tax, etc.

The Public Accountant, who is encharged with the year-end audit, also is normally overloaded with work at calendar year-end.

Bankers by reason of the number of Companies closing their books at calendar year-end, are often "mired" in Balance Sheet interpretation for some time thereafter. Mr. Mezner considers the Company submitting financial statements at other times will receive, everything else being equal, more considered attention from Bankers, because they will likely have more time available for deliberate consideration of credit needs.

Inventory counts and appraisals made outside in winter weather are less likely to be accurate, and undoubtedly will be more expensive in the matter of labor time paid for—so suggests the author.

The article suggests "the best method of determining a company's natural business year is by analyzing the inventories, receivables, payables, sales, and production by months for the past several years, to obtain some conception of the seasonal trend."

INTERNAL CHECK OR CONTROL—By N. J. Willoughby, A.C.A. (Aust.), in the Chartered Accountant in Australia, August 1950.

The author outlines the function of an Internal Audit Department—its responsibility in the matter of setting up adequate internal controls within the Accounting system, which controls lead to greater accuracy and leads from temptation of fraud; and its role in providing internal checks, as distinct from internal control. If these were the sole functions and contribution of an internal audit staff, however, the demands on their skills would probably not be excessive. The author's views on the full functions of the Internal Auditor are more comprehensive, however. He classes them as:—

(1) Control on strict observance of accounting principles laid down by the management.

(2) Introduction, improvement and test of office organizations and systems best suited to local conditions.

(3) Control on authorized capital expenditure.

(4) Physical verification of stock-in-trade and plant.

(5) Verification of accounting statements submitted to the management recording the historical facts and their relation to budgets.

(6) Special investigations.

The relationship of internal control, internal check, and the work of independent auditor is set forth thus:—

> Internal Control means exactly what is implied in its name—a check within the organization of the transactions and relevant records, as distinct from an audit of those same transactions and records, made by an outside person, the auditor. Internal check differs from auditings, inasmuch as the staff of the concern conducts whatever system of internal check may be in use.

Suggested aids for the recording of transactions in the most efficient and accurate manner are given; and other controls are suggested.

The following articles appear in the N.A.C.A. 1950 Conference Proceedings

WHAT WE NEED IN COST REPORTS—by Roy T. Hurley

Above all Mr. Hurley asks the Industrial Accountant to meet the minds of the Engineering Department. In Fords, where he at one time worked, he states that complete plant and production plans were worked out in great detail before an item was manufactured at all. This calls for co-operation of the highest form between the accounting and engineering divisions. Costs must be attached to engineering quantity estimates, so that comparative costs and yields are available for choice of alternate methods. This means synthetic costs, but such have to stand comparison with actual experience occurring later. Prophesy, in other words, has to be accurate. It isn't always possible to foresee every bend in the economic road before you come to it; but to those experienced and sincere, co-operating together, much can be accomplished; and variances in estimates usually need not be great.

Mr. Hurley speaks of historical costs as being too late in delivery to be useful. He says of historical costs: "you do have to be analytical and know how to distribute, and so forth, but the skill required is still of a limited order'." But of pre-determined or synthetic costs, he says: "It takes more ability to make history."

Mr. Hurley stresses to be on guard against easy answers. His company recently considered the installation of oil burning equipment. A saving of $100,000.00 a year was indicated. The capital expense was to be in the neighbourhood of $150,000.00. A justified expenditure, no doubt! Until they found that with an inexpensive alteration of the controls on their present coal burning plant, a similar saving was possible. And no capital expenditure of $150,000.00! And so the question of the easy answer is adequately exposed.

COST AND MANAGEMENT

WHAT WE NEED IN COST REPORTS — FOR FACTORY SUPERVISION — By Wm. K. Perry

Mr. Perry cautions the Industrial Accountant against the use of accounting jargon.

Accounting Reports must come in a form which can be quickly digested, expressed in simple terms.

Mr. Perry explains the requirements of a budget ledger and suggests its form.

THE INDUSTRIAL ACCOUNTANTS RATE IN LABOR RELATIONS — by Samuel L. H. Burk

The Cost Accountant is urged to be on top of labor contracts. That is, providing top management permits or encourages it, to know what the labor contracts contain. To contribute any useful data or information he can make available to management in advance of negotiations and not to wait until asked.

The Industrial Accountant's staff function and his co-operation with line authority is discussed. There is a danger implied in Mr. Burk's talk, of staff officers overstepping their function with regard to line peers or subordinates. The accountant definitely has a "control" function to discharge, but the organizational structure should be always adhered to.

MANAGEMENT OPPORTUNITIES FOR THE INDUSTRIAL ACCOUNTANT — by Charles R. Cox

The management function inherent in the chief accountant's own administration of his department is mentioned. Too, the Accountant contributes to management activities by his very work. He is in that respect definitely a part, even if subsidiary, of management. However, he should know what stands behind his figures. A real potential exists between operation and accounting for team work and co-operation.

Mr. Cox explains that Accounting might be defined as that "constituting the recording and statement of transactions which have occurred and the results achieved," while management "is engaged in planning the future." In the realm of Budgets and comparative cost analysis alone, it is easy to see the infringement of the Accountant upon territory defined as management's, under the above definition. And that lack of distinct demarcation between the two in practice is recognized by Mr. Cox.

The accountant's value to management is particularly emphasized in the realms of labor relation and taxation. It is suggested in the area of labor relations that "he can interpret to management the implications of added labor costs and point out the ability of the business to accept the burden."

Mr. Cox himself exemplifies some of the opportunity which exists for accountants to advance themselves in the field of management. He, a public accountant initially, moved from industrial accounting positions to that of works superintendent; and he is now President of Kennecott Copper Corporation.

Mr. Cox was asked why he left the Steel business which he knew so well, to go into the Copper business, which was relatively new to him. His answer which is a message of real inspiration was: "that the challenge

proved to be the deciding factor. When any man reaches a time in life at which he is unwilling to accept a challenge, then it will be time for him to retire.

OTHER ARTICLES OF INTEREST

Designing Cost Reports of Most Assistance to Management, by B. W. Ruffels, The Australian Accountant, November, 1950.

Eight Keys to Overhead, by W. Van Alan Clark, Jr., N.A.C.A. Bulletin, December, 1950, Section 1.

Ratio Analysis Calls for Internal Standards, by George W. Frank, N.A.C.A. Bulletin, December, 1950, Section 1.

A Critique of Cost Center Size and Account Detail, by Harlan White, N.A.C.A. Bulletin, December, 1950, Section 1.

The "Timeduction" Twin Incentive Plan, by Robert Langee, N.A.C.A. Bulletin, December, 1950, Section 1.

Retrospect on Job Evaluation Practices, by P. A. Scheuble, Jr., N.A.C.A. Bulletin, December, 1950, Section 1.

Watchdog Techniques for Trucking Costs, by Walter Harrison, N.A.C.A. Bulletin, December, 1950, Section 1.

Control of Foundry Scrap, by A. M. Atwater, N.A.C.A. Bulletin, December, 1950, Section 1.

Accounting for Construction of a Metals Plant, by George L. Stump, N.A.C.A. Bulletin, December, 1950, Section 1.

How to Build a Strong Management Team — Case Study Ford Motor Company, Factory Management and Maintenance, December, 1950.

Simplified Bookkeeping Promotes Office Economy, by Daniel F. Secord, The Controller, December, 1950.

Investment Company Accounting, by Ralph H. Galpin, C.P.A., The New York C.P.A., December, 1950.

Maintenance of Internal Controls, by Earle H. Cunningham, The Internal Auditor, December, 1950.

ADDRESSES OF PUBLICATIONS

The Australian Accountant, 430 Bourke Street, Melbourne, Australia.

Certified Public Accountant, 677 Fifth Avenue, New York 22, N.Y.

The Chartered Accountant in Australia, Box 3921, G.P.O., Sydney, New South Wales, Australia.

The Controller, 1 East 42nd St., New York 17, N.Y.

Factory Management and Maintenance, 330 West 42nd St., New York 18, N.Y.

The Internal Auditor, 120 Wall Street, New York 5, N.Y.

The Journal of Accountancy, 270 Madison Ave., New York 16, N.Y.

N.A.C.A. Bulletin, 505 Park Ave. (Fourth Floor), New York 22, N.Y.

Book Review

TAXATION OF COMPENSATORY PAYMENTS

By CARL H. MORAWETZ, L.L.M., D.Jur.
(The Carswell Co., Ltd., Toronto)

It is with a certain delight that one reads this interestingly written treatise of Dr. Morawetz on the Income Tax problems raised by unusual receipts. In the preface to the book, Senator Campbell points out that this treatise will assist in recognizing the fine line which divides an income receipt from a capital receipt. The author deals with the tax liability on "Compensatory Payments". Such receipts include Insurance receipts, Subsidies, Compensation on Expropriation, Damages, Interest and Commutation Payments in Master and Servant relationships. Although these receipts are not those ordinary payments which a person commonly receives in exchange for property parted with or services rendered in the ordinary course of events, these receipts are occurring at one time or another in almost every business enterprise. The author deals with the Income Tax liability arising from such receipts in a very thorough but throughout easily understandable manner which throws light on a number of points which the practitioner frequently encounters and often has to give advice on. In these cases, the lawyer or accountant, who will have to deal with a receipt of the special kind covered in this book will be well advised to make use of the skillfully selected and assembled mass of information, carefully based on decisions and dealt with under the aspects of the new Income Tax Act in its most recent amended form. Full information is presented on questions and problems which nobody could expect to find covered in sufficient detail in the regular general commentaries on the Canadian Income Tax Act. The book is clearly printed, invitingly set out in concise language without the over-sized paragraphs usually found in treatises of this kind. The book certainly fills a "want" in the all too scarce Canadian literature on Tax problems. The chapter, for instance, dealing with interests contains a clarification of the often puzzling relations between interest and premium, which every student-in-accounts should read, if he look for enlightenment on this involved and often confusing aspect.

The author states that there is no satisfactory general principle which could be applied to the question of income tax liability on compensatory payments. It is more important that businessmen and their legal and accounting advisers benefit from the available Court decisions as presented in this book in arranging the affairs of their enterprises in a manner which would not attract taxation unnecessarily. Often the wording of a document decides the purpose of a transaction as to whether the receipts e.g. subsidies are of an income nature and, therefore, subject to taxation. Forewarned is forearmed.

Summing up, this reviewer shares with Mr. E. S. MacLatchy (Foreword) the hope that the author will continue to write on other aspects of taxation law in Canada.

GEORGE MOLLER, D.Jur., C.A.

FIGURE-WORK

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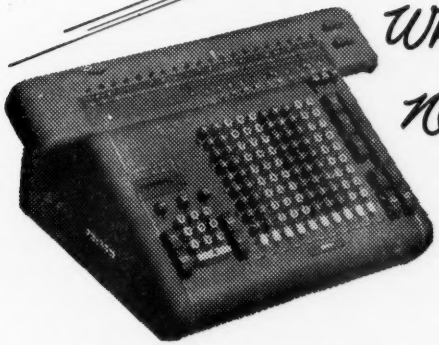

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What Do Distribution Costs Cost You?

C. B. TAYLOR, R.I.A.,
Cost Consultant, Toronto, Ontario

In many cases the cost of selling and distribution is several times the cost of manufacture, and yet it has received comparatively little attention.

This article presents a case study of distribution cost analysis and control as applied to a small business. It illustrates effective techniques for isolating the profitable and unprofitable orders and for pointing up those areas where selling effort should be concentrated or where selling is unprofitable.

Two and a half years ago I listened to an address by one of the eminent professors of our University of Toronto whose subject on that occasion was "Looking Forward". He immediately proceeded to take us back 2,000 years to convince us that there was nothing new under the sun. He stated, as fact, that back in those early years business was beset with many of the things that businessmen face to-day. He made the point that businessmen, in meeting common problems, resolved themselves together for common interests. He made the point that we had in those early days, unions. Admittedly, they were of the craft type and probably without the emphasis that we have to-day. He pointed to the fact that they had business cycles, economic movements, periods of good business and periods when business was not so good, periods of plenty and periods of famine.

It is not my purpose this morning to go back any such distance. I have no knowledge whatever of how costs were computed in those early days, if they were. But I would, nevertheless, like to take you back some twenty-five or thirty years. It was about that time when we first began to hear and read about standard costs. In my opinion no man can compute the value of that technique to industry. It developed the principle of the yardstick. It was not long thereafter that we were told that if we attempted to operate a business without a budget that that business would soon wither and die. In those early days our first attempt was to operate on what we now refer to as the

A Paper presented before the 29th Annual Cost and Management Conference

fixed budget. Following the experience there gained, we learned to prepare and to use the variable or selective budget. And it was also not long thereafter that we learned to use the profit graphs or profit projections by which we are able to properly assess the effect of volume on profit.

Why do I mention these things?

I use them to point up this, that they have one common denominator. They were designed and they are used to afford management a means of control. It is the element of control that I would like you to carry, if you will, in your minds for the next half-hour.

We come now to the subject of distribution. It is true that such studies of that phase of business as have been made, have been confined to the large companies. That is a general statement. Notable in that direction is the work which has been done by the packing industry. It is equally true that little has been done by the medium-size business, less still by the small business.

It was Professor Malcolm MacNair of Harvard who is responsible for the statement that in the forty years from 1890 to 1930 the sales cost, distribution cost, if you will, of Macy's of New York, increased from 13.6% to approximately 30% of the sales dollar. It is equally true, agreed by those who have made some study of the subject, that distribution costs in general have increased steadily for the past sixty years.

Contrast that, if you will, to what industry has been able to accomplish in the field of production. You know the pattern. For a period of a short twenty years from about 1920 to 1940, industry was able to reduce its cost of production unit-wise by one-third, and at the same time increase wages by 40%.

I would not have you believe that I think a similar thing can be done with distribution. I do not. The reason is that there was a tremendous factor, a transition in the doing of it, from manpower to horsepower. I say this to you, however, and with equal emphasis, that those of you who are not studying the subject of distribution and related costs are missing a bet. There is a field for the same approach — or relatively the same approach — as was taken with production.

Now if we are going to talk about distribution costs we should first perhaps define what we are talking about, and in the doing of that, I am about to transgress immediately some of the orthodox accounting lines.

Distribution cost should encompass all the costs that have anything to do with distribution. Therefore, let us start with our plant. The production phase is complete when we have manufactured our product and properly packed it ready for shipment. Most industrial plants have within their own buildings a warehouse and a shipping department. To us such costs fit in. You probably have local trucking, transport out perhaps to nearby points. You may sell on a delivered price basis. If so, you have carrier transportation. Getting out into the field, you have possibly, salesmen, one or two supervisors, commission men, jobbers. Coming back to the office, you have probably a sales manager, maybe an assistant, and they have a couple of secretaries, all tied to the distribution function. But let us go a stage further. You have order clerks, billing clerks; you have a credit manager, all tied to the distribution phase of the operation.

Most of us think in terms of a salesman bringing in business and, whether we like to admit it or not, we are inclined to accept volume for volume's sake. We are content to have some lemons mixed in with the oranges.

Now the question is often asked: Can we apply the same cost techniques to the distribution field as we do to production? The answer is yes, but to a much more limited degree. We must settle for quite a bit less.

When you hire a salesman you buy two things — time and ability. The effort that man puts into his work can be measured by the calls he makes, and the result of that effort is a measure of ability in the orders he receives. It would appear, therefore, to follow logically that we set up "cost per call" and "cost per order". When we did our initial research in this field some twelve years ago we laid down a formula of what we felt such a plan should do. I am going to read that to you:

1. The plan must be such that it can be used by the average business of, say, half a million dollars annual volume, and a dozen salesmen.
2. It must be fully effective as to control.
3. It must not be costly either to install or to operate.
4. Of most importance, it must be of a design that will enlist the salesmen's full support and enthusiasm.

For this purpose business tends to sort itself into two broad classifications, those which have repetitive selling and those which do not. The case history which is used for illustration is

that type of business where repetitive selling exists. And in respect of that, repetitive selling in our language means that type of business where a salesman is calling on his accounts once in two or three weeks to once in three or four months.

WHY STOP AT THE FACTORY DOOR?

Why stop at the factory door? It is a fact that a good many business operations do just that. We cost our products to four decimals, properly packaged ready for shipment, but we are content, so far as administrative and selling costs are concerned, to operate within a percentage of the sales dollar because that has been our common practice. So, therefore, let's tackle selling and administrative costs.

Before we get into our case history, I draw your attention to what one or two authorities in this field have to say. "You have got to cut the cost of getting it there." So says T. V. Houser, Vice-President in charge of Merchandising, Sears-Roebuck and Company, Chicago.

He supports this statement by the following illustration of production versus distribution man-hours. We have first a pair of men's dress shoes, and in Mr. Houser's review he finds that the production man-hours are 1½ and the distribution man-hours 6½.

Next a gallon of ordinary house paint, 24 minutes to produce it and 2½ hours to sell it. Next it is a bicycle, 5½ hours to produce it, a gas range 18 hours to produce it, an ordinary automobile battery 1 hour to produce it, a washing machine 20 hours to produce it, and a refrigerator 60 hours to produce it — and, again, Mr. Houser makes the point that distribution requirements range over those last five products from 3 to 10 times the number of hours it takes to produce them.

Carl W. Priesing, Ferry, Hanly Co. of New York and Chicago, has this to say: "Unless a manufacturer or wholesaler has a specific plan for applying sales effort in proportion to the profit opportunity his selling costs are likely to be higher than necessary."

"Time and again this is substantiated when management undertakes a study to show where the sales expense dollar is being spent."

"Invariably such a study shows that a large part of it is wasted on soliciting business which is unprofitable and can never be anything else."

To develop a plan is not simple, nor, on the other hand, is it too difficult. It requires: analysis, study, customer research, planning, scheduling, proper records.

We come now to the case history to which I have referred. This is a small business. It is under half a million dollars, slightly. There are two major lines of products. There are twelve territories involved, four of which are house territories, and eight salesmen are employed and one sales manager.

COST PER ORDER

A study of per order costs is invariably enlightening. It does not follow that because a salesman's per order cost is low he is doing the best job. That depends upon the character of the orders he obtains. Where, however, a range in external cost exists of from forty cents per order to ten dollars and twenty cents, as with this client, it becomes apparent that something is sadly amiss. Subsequent territorial analysis produced many interesting facts.

ACCOUNT CLASSIFICATION

In attempting to convert unprofitable to profitable volume there is involved the principle of selective selling. It is immediately apparent that customer classification must form a part of any such plan. Every customer is therefore classified as to desirability, the basic factors being annual volume contributed, tempered, however, by potential volume, credit rating and other similar items. With each individual business a scale for this purpose is determined. The following applies to this client.

The Size of Accounts

Class A	$1,000.00 and Over
Class B	500.00 to $999.00
Class C	250.00 to 499.00
Class D	100.00 to 249.00
Class E	50.00 to 99.00
Class F	Under 50.00

When the above scale has been applied to the accounts of the business for which it was designed it becomes possible to prepare an analysis of the total volume in the manner indicated below.

Total Sales by Account Classification

Class of Account	Number of Accounts	Number of Orders	Average Per Customer	Volume Per Order
A	102	12,001	$2,538	$21.6
B	100	4,977	689	13.8
C	185	5,471	357	12.1
D	292	4,983	160	9.4
E	235	1,937	73	8.9
F	738	2,489	17	5.1
Total	1,652	31,858	$ 285	$14.8

Sales Control Indices

Costs	Total	Per Order
Internal	$59,797	$1.88
External	40,150	1.26
Total	$99,947	$3.14

At this point I want to draw to your attention this fact that in F category — and that is the low one, there are 738 accounts out of a total of 1,652. By analysis it is determined that the internal cost of securing and handling the volume of this business stands at $59,797 and that the external cost of acquiring it stands at $40,150. In short, for a business doing somewhat less than half a million dollars, the cost of handling that business is approximately $100,000 in cost. Again, it is possible to us to develop that the "per order" cost of handling those 31,858 orders that you see is $1.88 and that the external cost related thereto is $1.26, or a total of $3.14. Some may argue that the cost of putting an order through your operation varies with the value of that order. If you continue to think so, test it some day. There is an influence, sure, but just try it, test it, work it out, time it, and you will find it is a practical procedure to follow.

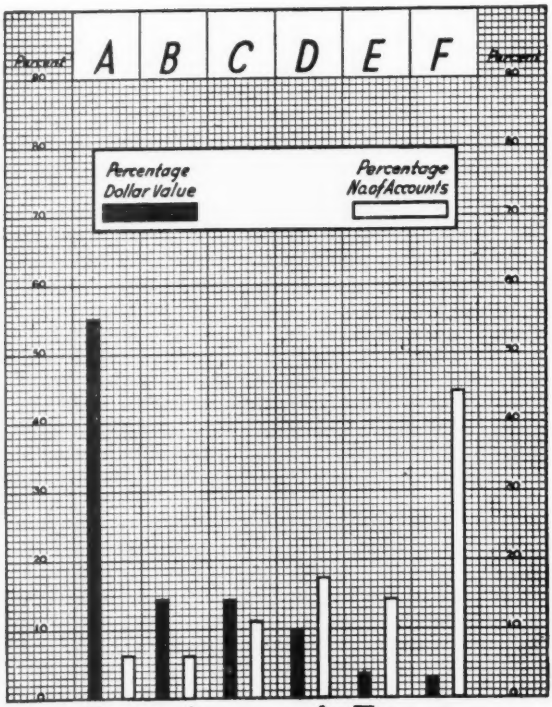
CUSTOMER CLASS BY MAIN PRODUCTS

Not only is it possible to analyze a business as indicated in the foregoing but invariably the output is classified to at least three or four main classes of product. In the following computation there is set forth such a business with three lines of product and it is interesting to note the contribution of each according to customer class. Of the highest, Class "A", note that product 2 contributes 77.9%. Of the least desirable business, class "F", note that product 1 contributes 58.2%. We have then

facts to substantiate the statement that there is a relationship between unprofitable volume and certain products.

Percentage Distribution Sales Volume

Class	Product 1	Product 2	Product 3	Total
	%	%	%	%
A	17.7	77.9	4.4	100.0
B	36.7	57.6	5.7	100.0
C	44.1	50.3	5.6	100.0
D	52.3	40.2	7.5	100.0
E	54.1	39.3	6.6	100.0
F	58.2	36.0	5.8	100.0
Total	30.0	64.8	5.2	100.0



Size of Accounts-All Territories

MAIN PRODUCTS — BY CUSTOMER CLASS

Utilizing the same basic data it is a simple procedure to restate the foregoing product-wise. Here is indicated in the

case of each product the proportion of volume contributed by each class of customer.

Percentage Distribution — Sales Volume

Class of Account	Product 1	Product 2	Product 3	Total
	%	%	%	%
A	32.6	66.2	46.8	55.0
B	17.8	13.0	15.9	14.6
C	20.5	10.9	15.2	14.0
D	17.3	6.2	14.4	10.0
E	6.6	2.2	4.7	3.7
F	5.2	1.5	3.0	2.7
Total	100.0	100.0	100.0	100.0

VOLUME VERSUS NUMBER OF ACCOUNTS

There is included to bring out the broad aspects of a business a graph (p. 20) giving percentage comparison of annual dollar volume with related number of accounts according to customer class. This points definitely to profitable and unprofitable volume. It will appear that this may be an unusual condition. Actually our experience shows that it is not. The analysis made for this client has proven that "E" and "F" accounts are definitely unprofitable and that approximately 50% (involving one product) of "D" accounts are also unprofitable. This graph is worthy of study. The highlights, of course, are that on the basis of dollar volume "A" accounts constitute 55% of the total which volume is contributed by 6.2% of the number of accounts. At the other end of the scale we find that "F" accounts produce only 2.7% of the dollar volume and that such limited volume constitutes 44.6% of the total number of accounts sold.

CONCLUSION

I stated earlier, that one of the important things is the benefit the sales force itself receives. From the type of data that has been submitted to you here, reports are produced both monthly and cumulatively in each territory and, through the principles involved, you do make a better businessman of your salesman. I think you'll go along with me when I say that you can take any man and if you can provide him with better tools with which to work, the result is usually all that can be expected.

We have seen introduced a bonus plan where salesmen are bonused according to each account they are able to move from

one category to the next better category. There can be introduced the competitive spirit between one territory and another.

Now you will probably be interested in knowing the result of installing such a plan and the cost to operate it. In the little job just reviewed, one girl does it in 2½ hours a day. Within a period of six months the per order cost was reduced from $3.14 to $2.87. Taking a little more normal operation, here is one: twenty salesmen, 4500 to 5,000 accounts, one boy full-time, cost per call within a period of one year reduced from $2.96 to $2.71, cost per order reduced from $5.01 to $4.41.

When we rendered our report including what you have seen here, we suggested to that management, look it over, we'll be back in a week or ten days. I was amazed to learn when that ten days was up and we had our conference with them that the management had said this to its sales force, "Boys, don't send in an order under $10. We just won't take it." I called on that firm one year later. The picture was all changed. Formerly we had an office full of clerks working hard. Now we had more order, a more orderly set-up, less clerical staff. The volume of business had increased and, as I have said, the per order cost had decreased; profit was improved beyond what they or we had expected.

Now, as with all things, there is an element of timing. We say this to you: In what is ahead of us the time is now. It was mentioned here this morning that things are changing. They have changed. They will change more. It was just a short few years ago when a great many of us were handing out our products in just sufficiently small quantities to keep our customers quiet. Not any more. You are going to have to sell them again. You are doing that now. We have a period of more intensive competition ahead. No one, I'm sure, will dispute that. We are going to have to sharpen our pencils in Canadian industry because, whether we like it or not, the fact is that our economy here is becoming more closely related to that of our friends to the south, day by day.

We suggest this to you, that if following the suggestions of Mr. Howey this morning, you are going to reassess your business, you are going to take a look, you are going to plan, you are going to consider. Then, in the doing of it do not overlook the possibility of considerable savings in the cost of your distribution. Those savings are there if you want them.

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Some Problems of Budgetary Control in the Pulp and Paper Industry

By FRANK E. WOOD, O.B.E., R.I.A.

The importance of the pulp and paper industry to Canada's economy is well known. It is not only the largest but the dominant industrial producer, employer, wage payer and exporter in Canada. Wide variations in wood costs, and the lapse of time from cutting to processing in the mill, is but one of many complex problems peculiar to this industry in which selling prices are established by the world market.

It is indeed a privilege and a pleasure to have the honor of speaking to you to-night. It does not seem possible that ten years have elapsed since a small group met at the old Laurentian Club and decided to start a Chapter in Ottawa, with the help and blessing of the late Dick Dawson, then Secretary Manager of both the Ontario and Dominion Societies. Ottawa had relatively few industrial plants. Most of the prospective members were busily engaged in war work, either as Civil Servants or in industry. Nevertheless, it was felt there was a definite need for such a Chapter.

The continuing success and steady growth of the Ottawa Chapter is convincing proof of the soundness of the original decision, also of the splendid support of those who have maintained a keen and active interest in the face of many obstacles.

The Society as a whole is also growing rapidly in stature and the future looks most encouraging. Whether we are at peace, or war, the increasing complexity of business has tremendously enlarged the demand for trained industrial and cost accountants.

Before discussing briefly some of the problems in budgetary control in our industry, I would like to say a few words regarding the pulp and paper industry in its relation to Canada's economy. In so doing, I have drawn freely on various published facts and figures as well as expressions of opinion from leaders in the industry in North America.

Pulp and Paper is not only the largest but the dominant industrial producer, employer, wage payer and exporter in

A Paper presented before the 10th Anniversary Meeting of the Ottawa Chapter

Canada. Our annual output has a value far exceeding that of our wheat and all other grain crops combined. It creates more new wealth each year for Canada than the output of our entire mineral industry, including gold, coal, oil, asbestos, etc. One out of every ten freight cars loaded in Canada is loaded by this industry.

Our exports account for more than 20% of all Canadian trade abroad and in the last three years have earned 38c of every dollar obtained by exports to the United States.

The earnings of U.S. dollars are particularly important in a world divided into sterling and dollar blocs with little or no convertibility from one to the other. Canada's historical position as a world trader, purchasing largely from the U.S. and selling mostly to the rest of the world, has been seriously upset by our inability to convert one form of currency to another. We are increasingly dependent on exports to the U.S. to balance essential imports from that country.

Taxation statistics recently issued by the Department of National Revenue shows that in the year 1948 there were some 44,000 taxable companies in Canada, of which 28,000 reported profits and 16,000 reported losses. Profits declared for the year totalled $1,959 millions. Of these, Canadian Pulp and Paper Mills were well in the lead of all other industries for the year earning $172.7 millions distributed over 69 mills and paying a total tax of $53 millions.

It will be apparent from the foregoing that the pulp and paper industry is not only of prime importance, but the greatest single contributor to the strength of our export trade. It may help you to visualize the capital employed, to mention that in newsprint alone, there are 138 newsprint machines operating in Canada, averaging an investment of up to $4,000,000 per machine and in total producing some 17,000 tons of newsprint every working day.

Economically sound operation of this tremendous capital investment in the pulp and paper industry is predicated on a continuous adequate supply of wood of suitable species and economically acceptable cost. While some pulpwood is made available by farmers clearing their land, generally speaking, the mill supply can only be ensured by leasing or owning a forest. Provincial Governments have set aside suitable areas of Crown lands for lease to the mills, but require that the operators limit cutting to an amount not in excess of the annual increment from

natural reforestation and growth. This is, of course, sound forestry practice, but inevitably involves heavy capital investments in such things as roads, dams, bridges, river improvements, cruising, etc., plus heavy annual carrying charges for fire protection. In addition, the Crown collects stumpage dues on all wood produced.

Such leases usually stipulate the applicable rates but permit the Crown to vary them at will. Like taxes, historically they increase from time to time but seldom, if ever, are reduced! Hence the economic future of each mill is largely in the hands of the Government in power.

Generally speaking the basic raw material for all pulp and paper mills in Canada is pulpwood. Eastern newsprint and sulphite mills prefer spruce but are using increasing percentages of balsam and jackpine. Kraft mills can use any species, some of which, up to fairly recently, were considered of little commercial value. On the West Coast some mills obtain a substantial portion of their wood supply from waste wood arising from timber operations, in the form of slabs, edgings and trees too small for sawmill use.

East of the Rockies, our mills have been built fairly close to large limits either leased from the crown or purchased outright, from which the mills can depend for a constant supply of wood, supplementing this by purchases from farmers. With the tremendous capital investment involved in mills it is of course of paramount importance that sufficient raw material be available to ensure continuous operation. In the area commonly called the pulpwood region of Canada, roughly north of a line running through Sault Ste. Marie, climatic and terrain conditions are such that trees generally do not mature to economical sawlog size but can be harvested as pulpwood. The natural growth is very slow, hence large areas are required to provide adequate yearly crops on a sustained basis.

Some authorities are of the opinion that the public interest would be better served if the lands were sold outright rather than leased, as it is difficult to attract risk capital to an enterprise that might be made uneconomic, regardless of contract provisions, at the whim of a political party. They feel that under present conditions, investors are unwilling to furnish the capital necessary to provide for sound forestry practices if there is a possibility, through no fault of the operator, of losing a substantial portion of the capital invested.

For many years the universal practice was to cut trees, trim off the branches, and buck the logs to 4, 8 or 16 foot lengths, pile alongside "strip" roads all by hand, and then, following sufficient snowfall, load by hand and haul the logs by team or truck to landings either at water or rail. Many attempts have been made, with varying degrees of success, to do part or all of the hand work mechanically. Our own company has pioneered the so-called "Mechanical Logging" where, with the exception of falling the trees and branching, all operations are done mechanically. This has been most successful, but it is not a cure-all and in some locations and under some conditions, it is more economic to use the old standard method or a combination of the two. As a result, our Woods operating costs may, and do, reflect several types of operations during any given period.

Weather conditions override planned schedules from day to day or week to week. For example, we normally anticipate rafting the first pulpwood from the holding grounds at the Mouth of the Pic River across Lake Superior to our Mill pond before May 1st. Due to an unusually cold and backward Spring in 1950, no breakup occurred on the Pic River until the middle of May, hence the first raft could not be made up until after that date. Similarly, production of pulpwood for the 1950-51 season was scheduled to start early in April, but there was so much snow in the bush that the first cutting was delayed 5 to 6 weeks. During the cutting season unusually heavy rain, thunderstorms, fire hazard levels, unusually dry weather, severe snowstorms or blizzards, all raise havoc with operating schedules.

The break-even point in the Pulp and Paper industry, particularly in the case of new mills, is very close to full capacity, and, therefore, profitable operation depends on sufficient sales to permit running full or very close to it. At the same time, the season's cut must be sufficient, together with any purchase wood available, to maintain this rate of operation plus an inventory margin of safety.

Management, having decided the total cut for the season and the cutting area having been approved by the Provincial Government, it is our practice to prepare detailed appraisals. These are made up for each camp and reflect the judgment of the operators, in the light of actual results in prior years, of the factors to be considered, such as ground contours, existing roads and/or waterways, density and species of timber, haul distance,

etc., plus such adjustments as may be deemed necessary to take care of known variations in methods, wage schedules, meal costs, camp or road construction, etc.

These appraisals are carefully made, and in our experience, work out with great accuracy in relation to the final actual cost per cord. The day to day operation of each camp follows the appraisal as far as possible, but it may vary substantially either way, due to weather conditions.

Before we can establish budgetary control, it is of course necessary to set up a budget. This normally will fall into two main groups, Fixed and Variable costs. Fixed charges do not vary substantially with the level of production and include such things as interest on funded indebtedness, depreciation, insurance, capital tax, place of business tax, real estate and municipal taxes and fire protection charges.

There are costs, however, that are fixed per unit of production such as stumpage dues and piece work wage rates. Others vary with dollar costs but are at a fixed percentage of such costs, i.e., Unemployment insurance and Workmen's Compensation. Some so-called fixed costs can, and do, change overnight with or without prior warning. For example, fire protection dues are assessed by the Provincial Government at so much per square mile. Early in 1950 these rates were suddenly doubled without prior notice. Stumpage rates may be similarly increased by the simple process of passing an Order in Council. Woods operations formerly included with mill payrolls for Workmen's Compensation board assessments, were suddenly transferred to a higher classification, and mill rates were lowered. The net cost of this item to an integrated operation was approximately the same, but the change upset the respective mill and woods budgets.

As in any other operation requiring substantial capital expenditures, fixed charges are incurred regardless of production. Unusual weather may result in temporary fluctuations between budget and actual costs but in most cases as long as the total quantity for the year does not alter, peaks and valleys tend to average out and final costs work out very close to estimates.

Wood costs of course, make up a substantial portion of the cost of finished pulp and paper, but not usually a concurrent cost. Usually the pulpwood consumed by the mill during any given fiscal period has been produced not later than the previous fiscal period because of the time element involved in

getting the logs to the mill from their original forest location. This time lag is also responsible for an integrated operation having different fiscal periods or operating years within any calendar year. For example, in our Company, our financial statements are based on the fiscal year November 1st to October 31st but our Woodlands operating year is April 1st to March 31st. Normally, pulpwood cut and hauled during the year ending March 31st 1950 cannot reach the mill until after the Spring breakup of 1950, hence the mill must have sufficient inventory on hand at freezeup the previous Fall to carry their production through the Winter and early Spring, plus a reasonable margin of safety. In most cases it is fairly late in the Summer before the previous year's wood is exhausted and new wood is actually used in the mill. Hence a wide variation in wood costs can have serious effects on inventory valuations and mill costs, long after the wood has actually been produced. In some parts of Canada two or three years may elapse between the time the pulpwood is produced in the bush and the date it reaches the millpond. Another important factor is the large amount of funds tied up in such inventories for extended periods of time, and the necessity of planning for all contingencies far ahead to ensure sufficient supplies to meet actual demands. Should a mill be shut down with no inventory of pulpwood on hand, obviously it could not start up again, regardless of any other considerations, until sufficient time had elapsed to produce and deliver sufficient wood for continuous operation.

Because of the time lag and the separate operating years, it is the usual practice to keep the woodlands operations separate, carrying the current year's woodlands production as "Pulpwood in Process" until it is actually delivered to the Mill and then charging the mill inventories with the deliveries at the previous year's cost plus the driving and rafting expense. In other words, we have two separate operations, two sets of budgets and actual costs to watch, one the present mill costs and the other current woodlands costs, which will affect the mill costs next year or at least several months in the future.

From experience, we have found it impossible to use a variable budget in woods operations for month to month control through comparison with actual costs, because so much preparatory work and expense is carried out prior to any actual production. At the beginning of the season, costs per cord cut exceeds budget and in some cases appear almost fantastic but

as the season progresses and the finished wood is scaled, the actuals progressively come closer to the budget and eventually finish up almost exactly as estimated.

One of the chief values of our woods budget is to arrive at the estimated cost for the season, which can be used in mill calculations. From it, we can determine inventory values of wood at any season or time of the year. Pulpwood is the largest single item in the cost of pulp and it is, therefore, important to know its estimated cost in advance for many reasons.

Budgetary control in a continuous process industry such as a pulp mill is simple, both in theory and practice. Once standards have been established for each step of the operation, it is a relatively easy matter to provide daily, weekly or monthly comparisons of actual to budget, so that management can readily determine the relative efficiency of the operation. At each level of authority, detailed figures can be provided for items controlled or under the jurisdiction of that particular level.

Before the war, I was employed in a newsprint mill where the budget and actual costs for the day, and the month to date, were placed before the management within 24 hours of the actual operation. Steps could be, and were, taken promptly to remedy any controllable variation. Month after month, final costs were within a cent or two per ton of the budget costs calculated before the commencement of the period. Labour rates, raw material costs and overhead charges were of course relatively stable.

Our Marathon Mill in Canada, is, of course, a relatively new venture, built under wartime conditions, with a testing and turning period late in 1946 and the official production starting early in 1947. Substantial capital expenditures have continued; to improve the project; to eliminate bottlenecks; increase efficiency and production. We are now starting a three million dollar construction program to add a chlorine plant and to increase our steam plant capacity. Experimental and research work is continuously carried on to determine the maximum utilization of each species of wood. As a result, operations have not yet reached maximum stability and probably will not do so for some years. In view of this, we are not attempting to operate the mill to a budget but Management is advised the extent and reason for variances. We rely on our standard costs to signal exceptional variances, so that our operating manage-

ment is able to control costs within the operation and construction program.

In preparing financial budgets, it is usual to estimate cash required to meet payrolls, bills for raw materials, supplies and various charges.

Prior to creating any financial budget control, in construction days it was found almost impossible to keep adequate funds on hand and still avoid unnecessary surpluses. Overnight, it would suddenly become apparent that large sums of money were needed immediately and payments were temporarily held up until additional financing was obtained.

Now we estimate for a year ahead at the beginning of our fiscal year and again prior to the beginning of each month. In practice, the monthly estimates prove to be very close to actual requirements.

Insofar as Woodlands operations are concerned, an interesting variation is caused because of the general practice of accumulating net earnings of bush workers subject to cash orders and final payment on termination of employment. Normally, the majority of bush workers start their forest work some time in the late Summer or early Fall and work through until cutting and hauling is completed. With the exception of minor amounts requested for various purposes, the net earnings are carried forward from month to month and paid off in full on termination of employment in the early Spring. It is usual, therefore, to see the account for unpaid wages increase rapidly during the Winter and then drop very sharply in March or April. It is always a current liability as theoretically, the entire amount could be demanded at any time, but normally the actual cash requirements for this period of the year are substantially less than would appear from an examination of the balance sheet. From experience it is usually possible to estimate fairly closely, the carryover. Some companies have switched to a monthly check basis, so as to clean up all wage accounts at the end of each month, but even if the checks are handed to the workmen, they are seldom deposited or cashed promptly for many reasons, including lack of convenient banking facilities. Most men are reluctant to have checks or cash in the bush where they may be lost or accidentally destroyed and prefer to use their employers as bankers, or at least custodians, until such time as they leave for home. With the growth of mechanical logging in our company, we are aiming for all year employment of our woods em-

poyees as contrasted with the wide swings in number of employees from month to month with manual logging. We feel it is in the best interests of employees and employers and the economy of the nation to strive for continuous employment of trained personnel, than to virtually shut down for several weeks or months and make available work only for a short period and so attractive only to part-time or marginal workers.

The selling price of our finished product, alas, is beyond our control. It is established by the world market and may change overnight for better or for worse. Usually pulp prices are established quarterly, reflecting world supply and demand. As manufacturers, we must plan at least 18 months to two years ahead, making the best possible estimate of market conditions as to quantity and price and then operate, if possible, so as to provide steady employment for our workers, maintain our properties in sound condition, meet competition and earn a modest profit for our shareholders.

Personals

Mr. John A. Fuller, B.A., R.I.A., has recently been elected President of the Shawinigan Water and Power Company. Mr. Fuller joined the Shawinigan organization in 1937 as Secretary of the Shawinigan Chemicals and in 1945 became Vice-President and Vice-President and Director of Shawinigan Water and Power. He is a member of the Montreal Chapter and was one of the speakers at the 1948 Conference in Quebec City.

Mr. E. L. (Roy) Otto, R.I.A., has been promoted to Acting Manager of Moirs' Limited. Mr. Otto was formerly Chief Accountant of the Company. He was one of the Charter members of the Society of Industrial and Cost Accountants of Nova Scotia and is presently 2nd Vice-President.

Mr. C. A. Miller, formerly Cost Accountant at Atlas Steels Ltd., Welland, Ontario, has been appointed Cost Accountant of the National Film Board, Ottawa. Mr. Miller recently completed his course and is now preparing his thesis to qualify for Registered Membership.

The Aerovox Canada Ltd. has just announced the appointment of Mr. Harold Llewellin, R.I.A., as Controller. Mr. Llewellin has been with the Company three years as Cost Accountant and is presently secretary of the Hamilton Chapter of the Ontario Society.

« STUDENT SECTION »

GENERAL ACCOUNTING

Comments by J. D. CAMPBELL, C.A., R.I.A.

ACCOUNTING II

QUESTION 2 (10 Marks)

The G.H.I. Partnership goes into liquidation at 31st December, 1949. At that date the partnership had liabilities of $4,000.00 and the partners' capital accounts showed balances as follows, G—$4,000, H—$10,000, I—$8,000 and they shared profit and losses 6: 3: 1 respectively. The assets realized $15,000.00 on liquidation.

Required:

Present the journal entries or a working schedule to reflect the liquidation and distribution of the proceeds to the partners.

(a) where all the partners are solvent

(b) where G is insolvent and you assume the Garner vs. Murray decision is applicable.

SOLUTION to Question 2

G.H.I. Partnership

(a) General Journal

1949				
31 Dec.	Dr. Realization		$26,000	
	Cr. Assets			$26,000
	Dr. Liabilities		4,000	
	Cr. Bank			4,000
	Dr. Bank		15,000	
	Cr. Realization			15,000
	Dr. G. Capital		6,600	
	H. Capital		3,300	
	I. Capital		1,100	
	Cr. Realization			11,000
	Dr. Bank		2,600	
	Cr. G. Capital			2,600
	Dr. H. Capital		6,700	
	I. Capital		6,900	
	Cr. Bank			13,600
	(b) Entries 1 to 4 similar to above			
	Dr. H. Capital		1,444	
	I. Capital		1,156	
	Cr. Capital			2,600
	Dr. H. Capital		5,256	

I. Capital	5,744	
Cr. Bank		$11,000

The majority of errors which occurred in this question resulted from the failure on the part of the student to properly assess the information which was given in the question. As the assets of the partnership amounted to $26,000 and it definitely stated that the assets realized $15,000, there was no justification for the students assuming that reference was made to the net assets. The liabilities were paid out of the proceeds realized from the liquidation of the assets.

Several students indicated that they had no knowledge of the Garner vs. Murray case, referred to in the question. The details of this case and its application are set out on page 255 of Smails' "Accounting Principles and Practice".

COST ACCOUNTING

Comments by A. V. HARRIS, C.A., R.I.A.

FUNDAMENTALS OF COST ACCOUNTING

QUESTION 3 (21 Marks)

The Manufacturing operations of the Douglas Company Limited consist of three producing departments, Mixing, Packaging and Finishing, and two service departments, Electric Power and the General Factory Office. For these departments all costs of operations, exclusive of direct material and direct labour, in the month of March 1950 are as follows:

Electric Power	$ 503.25
Finishing	7,263.00
General Factory Office	1,575.00
Mixing	1,692.50
Packaging	2,666.25

Additional information concerning certain of these departments is as follows:

	Electric Power	Finishing	Mixing	Packaging
Direct Material		$ 2,000	$17,000	$6,000
Direct Labour Cost		8,100	9,200	4,950
Horse Power Hours		5,400	3,000	8,750
Total Labour Hours	250	15,000	11,500	8,250
Direct Labour Hours		13,500	9,200	5,500

Required:

(1) Prepare a work sheet to show the distribution of service department manufacturing expenses to producing departments. Calculate the overhead rates for the producing departments on a

(a) prime cost basis

(b) direct labour cost basis.

(2) Record in journal entry form the entries necessary to transfer the service department expenses to the producing departments.

SOLUTION to Question 3

DOUGLAS COMPANY LIMITED

DISTRIBUTION OF SERVICE DEPARTMENT COSTS

(3) (a)

	SERVICE		PRODUCING		
	Factory Office	Electric Power	Mixing	Packaging	Finishing
Direct Department Expense	$1,575.00	$503.25	$1,692.50	$2,666.25	$7,263.00
Distribution of Factory Office on Total Labour Hours	1,575.00	11.25	517.50	371.25	675.00
Distribution of Electric Power on Horsepower Hours		514.50	90.00	262.50	162.00
Factory Overhead per producing Department			2,300.00	3,300.00	8,100.00
(a) Rate on basis of prime cost					
Direct Material			17,000.00	6,000.00	2,000.00
Direct Labour			9,200.00	4,950.00	8,100.00
Prime Cost			26,200.00	10,950.00	10,100.00
Rate per $1.00			8.77%	30.14%	80.2%
(b) Rate per Direct Labour cost			25%	66⅔%	100%

	Dr.	Cr.
(b) Journal Entries		
Electric Power Expense	11.25	
Mixing Expense	517.50	
Packaging Expense	371,25	
Finishing Expense	675.00	
Factory Office Expense		1,575.00
Mixing Expense	90.00	
Packaging Expense	262.50	
Finishing Expense	162.00	
Electric Power Expense		514.50

COMMENTS:

This problem was answered well by students who understood "Prime Cost", "Direct Labour Cost" and allocation of service department charges. A number of students were mislead and attempted to allocate the service department costs on the basis of Prime Costs or Direct Labour Costs—or both.

The examiner had not imagined that such a deduction was possible from the wording of the problem, and after considering the wording finally came to the conclusion that these students were not sufficiently familiar with development of factory overhead rates. For these students who attempted the improper allocation, some marks were alloted for form, and general understanding of method, but the results were generally very good or very poor. The average mark of papers examined was 13½ out of a possible 21, and approximately 20% of the candidates received full marks, and another 25% obtained almost full marks.

There were several students who made inexplicable allocations of service department costs — and the examiner was unable to guess the basis used. It would have been helpful, in such cases, if the student had stated his basis.

EMPLOYMENT WANTED

Bachelor of Commerce Graduate (McGill - 1949), who wrote his C.A. Finals in October 1950 and is at the present time writing his Cost Thesis for R.I.A., desires to become associated with a firm in the Toronto - Hamilton area, as Assistant Internal Auditor with the prospect of becoming Chief Internal Auditor, or, as Assistant to the Treasurer or Controller. Veteran, thirty. Available February 1951. Box 20.